



Small Print Shops

P2 Fact Sheet

Utah Department of Environmental Quality

Promoting a Healthy Environment

Small print shops are prime candidates for pollution prevention (P2) and waste reduction.

Typical wastes generated by printing shops include spent photographic developers and fixers, cleaning solvents, sludge and wastewater containing heavy metals, inks and solvents. Many are categorized as hazardous waste and must be managed and disposed of legally.

Reduce or eliminate all types of waste including hazardous waste, solid waste and air and water emissions to run small shops as economically and efficiently as possible.

Reduce or eliminate the amount of waste generated and lower operating costs by:

Good Housekeeping

Good housekeeping measures greatly decrease or eliminate the amount of waste generated. Reduce excess waste production by:

- Making sure container lids fit tightly and are used to prevent chemical loss through evaporation or spillage. Keeping lids on containers also prevents contamination from water, dirt or other materials
- Using spigots and pumps to dispense new material and funnels to transfer waste to storage containers
- Storing products in locations that preserve shelf life
- Accumulating waste indoors or in a covered area to prevent exposure to the elements
- Never mixing different types of waste together
- Keeping your shop clean and orderly to prevent accidents and spills

Segregate Waste Streams

Keeping waste streams separated allows for easier recycling and reduces disposal costs. For example, if you use some inks that contain toxic pigments and some that don't, keep the waste separated. Dedicate one press for toxic pigments and inks if possible..

Substitute Raw Materials

Consider replacing raw materials with ones that reduce or eliminate toxicity. Always take disposal costs into account when determining which materials to purchase. You may:

- Substitute hazardous inks with less hazardous ones like vegetable oil or water-based ones
- Substitute developers with ones having less or no isopropyl alcohol
- Use all-purpose solvents rather than those dedicated to particular uses

- Spot-apply solvent rather than pouring it
- Use silver-free processing plates to prevent silver halide contaminated fountain baths

Modify Your Process

- Always start printing with lighter colors to reduce need for cleaning when changing to darker inks
- Use “doctor blades” and squeegees to remove as much ink as possible prior to cleaning with solvent and rags
- Use aqueous plates to eliminate potentially hazardous plate-developing chemicals

Reuse Materials Before Disposal

- Recapture excess ink silk screening by squeezing it back into the can before washing screens. It decreases the amount of ink used and cleaning emulsion needed
- Extend the life of photographic chemicals by adding replenishers and regenerators
- Reclaim and recycle silver from photographic waste water. Consider adding a silver recovery unit, making it possible to sell reclaimed silver and avoid treating the waste water as a hazardous waste
- Apply a spray to the fountain solution to prevent drying. Fill fountain only enough for a particular run
- Reseal ink containers properly after use

Non-Hazardous Waste Reduction

Non-hazardous waste reduction methods used successfully by small shops include:

- Finding alternative uses for drums, containers or materials exceeding their shelf life
- Using waste paper for packing, internal memos or scrap paper for notes. Waste paper may also be donated to schools or churches
- Becoming aware of potential area recyclers for all waste including paper, cardboard, aluminum plates and solvents
- Using an industrial wiper rental service instead of disposable fabric or paper towels

For More Information, Contact:

Pollution Prevention Coordinator - (801) 536-4477
 Division of Solid & Hazardous Waste - (801) 538-6170
 Environmental Hotline - 1 (800) 458-0145
 Small Business Assistance Program - (801) 536-4479